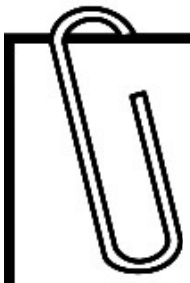

Easy Derma 2016

(2)

By: Huda Ali

Metobolic cases

Case 1 (Master 11/2013)

A 35 years old female patient complained from erythematous reticulated plaques & patches of 3 months duration after intense sun exposure affecting the midline of the chest in front of the sternum. Patient noticed exacerbation of the lesion with menses. Serological tests for lupus erythematosus are negative.

a) What is your diagnosis?

b) What is the characteristic histopathology of this condition?

c) What is your management?

d) What is the regional DD of other skin lesions affecting the skin in front of sternum?vcx

Answer:

a) Reticular erythematous mucinosis (REM)

Key points:

- Erythematous reticulated plaques & patches
- Sun exposure
- Midline of the chest in front of the sternum
- Serological tests are negative.

b) In the upper dermis, there is vascular dilatation, perivascular mononuclear infiltrate & mucin deposits between collagen bundles.

c)

- Antimalarial 2-6 weeks
- Sunscreens
- Topical & systemic corticosteroids
- Topical tacrolimus
- Oral antihistamines
- UVB, UVA1 irradiation

d)

- Steatocytoma multiplex
- Antisynthetase syndrome
- Epidermodysplasia verruciformis
- Tinea versicolor
- Seborrheic dermatitis
- Darier's disease
- Acne
- Folliculitis
- Dermoid cyts
- Photodermatoses:

  - Polymorphic light eruption
  - Actinic dermatitis
  - Actinic prurigo
  - Porphyria
  - Xeroderma pigmentosa
  - Photosensitivity

Case 2 (Master 11/2013)

A 48 years old male complained from skin lesions in the form of scattered vesicles, erosions, crustation & scattered milia on the dorsum of both hands of 1.5 year duration. Lesions are increasing on exposure to sun. Patient noticed hypertrichosis on the cheeks. Patient drinks alcohol.

a) What is your diagnosis?

b) Mention the pathogenesis for this condition?

c) What is your management?

Answer:

a) Porphyria cutanea tarda

Key points:

- 48 years old (middle age)
- Vesicles, erosions
- Increasing on exposure to sun
- Hypertrichosis
- Drinks alcohol (alcoholism, hepatic)

b) Excitation of porphyrin by light leads to peroxide formation & damage to lipid membranes of the cells. Complement activation may play a role in production of skin lesion.

c)

- General measures: Avoid toxic agents: alcohol, Avoid sun exposure & use of sunscreens
- Phlebotomy: 500ml/2weeks for a total 6-10 venesections.
- Chloroquin : 125 mg twice weekly for 8-18 months
- B- carotene: 50-200 mg daily
- Desferrioxamine, plasmapharesis

Case 3 (Master 11/2010)

A 38 years old man presented with a 10 week history of sudden onset of non-pruritic eruption on his face, trunk, & proximal extremities. On examination the affected areas showed multiple discrete 2-4 mm yellow-orange papules. Histologically revealed normal epidermis & papillary dermis, aggregate of plump lipid-laden histocytic cells in reticular dermis.

a) What is the diagnosis of this case?

b) Your clinical DD?

c) Mention the other clinical variesties of this condition?

Answer:

a) Eruptive xanthomas

Key points:

- Non-pruritic
- Yellow-orange papules
- Lipid-laden histocytic cells in reticular dermis

b) DD

- Xanthoma disseminatum
- Popular sarcoidosis
- Eruptive histiocytoma
- Erythema elevatum diutinum
- Folliculitis
- Granuloma annulare
- Juvenile xanthogranuloma
- Multicentric reticulohistiocytoma
- Molluscum contagiosum

c)

- Tuberous xanthomas
- Tendinous xanthomas
- Plan xanthomas
- Verruciform xanthomas

Case 4 (Master 11/2011)

A 25 years old female in emergency room presented with scarring, blisters, over the dorsum of both hands associated with recurrent severe abdominal pain, vomiting & constipation.

a) What are the possible causes & how to reach the final diagnosis?

b) How to manage this condition?

Answer:

a) Variegate porphyria, Hereditary coprophorphyria

Key points:

- Dorsum of both hands (sun exposed)
- Scarring, blisters (cutaneous lesions)
- Abdominal pain, vomiting & constipation (systemic features)

In variegate porphyria:

- Urine: ↑ ALA & PBG during attacks, & return normal between attacks.

- Stools: ↑ protoporphyrin & lesser extent coproporphyrin, during & between attacks.

In Hereditary coprophorphyria:

- Urine: ↑ ALA , PBG, coproporphyrin during attack.

- Stool: ↑ coproporphyrin

b)

- General measures: Avoid toxic agents: alcohol, Avoid sun exposure & use of sunscreens
- Phlebotomy: 500ml/2weeks for a total 6-10 venesections.
- Chloroquin : 125 mg twice weekly for 8-18 months
- B- carotene: 50-200 mg daily
- Desferrioxamine, plasmapharesis
- During the attack: ICU: morphin for pain, chlorpromazine for nausea,vomiting & psychiatric symptoms, propranolol for tachycardia & hypertension.

Case 5 (Diploma 4/2016)

A 2.5 years old baby treated from frequent attacks of diarrhea in the previous few months. Shortly after cessation of breastfeeding, he developed crusted skin rash in the napkin area, palms & soles not responding to topical treatment. Now he has developed diffuse hair loss on the scalp.

a) What is the most likely diagnosis?

b) What is the DD of this case?

c) What are the investigations & ttt of this case?

Answer:

a) Acrodermatitis enteropathica

Key points:

- Diarrhea
- Cessation of breastfeeding
- Napkin area, palms & soles
- Diffuse hair loss

b) DD:

- Atopic dermatitis
- Biotin deficiency
- Candidiasis
- Epidermolysis bullosa
- Langerhans cell histiocytosis
- Necrolytic acral erythema
- Psoriasis
- Seborrheic dermatitis

c) Investigations & ttt

lab:

- Serum zinc level
- Alkaline phosphatase level (low)

Histopathological examination:

Pallor of the upper part of the epidermisdue to presence of clear cells. Diffuse parakeratosis& subcorneal vesicles may be present above the pale epidermal cell.

Treatment:

8-hydroxyquinolines → zinc absorption

Zinc sulphate 2mg/kg/day

Case 6 (Diploma 11/2011)

Two brothers manifested with **hoarseness of voice** & diagnosed as lipoid proteinosis.

a) What are the clinical features of this case?

b) What is the pathology of this disease?

c) How can you manage this case?

Answer:

a) Clinical features:

1. Hoarseness of voice
2. Mucous membrane lesions: diffuse yellow-white firm hyaline deposits on pharynx, buccal mucosa, tonsils, lips & tongue.
3. Skin findings: yellow-brown papules & nodules on the face healed with pitted scars, beaded papules along the margins of the upper &lower eyelids (Diagnostic), hair loss of scalp & eyelids, hyperkeratotic lesions on finger joints, axillae or knees.
4. Intracranial calcification & epilepsy.

b) HP:

The upper dermis contains thick, homogenous bundles of hyalinematerial around capillaries & sweat glands. It stains strongly with PAS & -ve with amyloid stains. Fine droplets of lipids may be found.

c) ttt:

- Surgical excision
- Oral diethylsulfoxide
- Systemic retinoids (acitretin 0.5mg/kg/d up to 6 months)
- D-penicillamine

Case 7

A mother noted pink staining of the nappies of her neonate. During phototherapy for his neonatal jaundice, the neonate develops vesicles & bullae which heal leaving mutilating scars. There was positive consanguinity between his parents.

a) What is the most likely diagnosis?

b) How do you confirm the diagnosis?

c) Management?

Answer:

a) Congenital erythropoietic porphyria

Key points:

- Pink staining nappies
- Phototherapy
- Vesicles & bullae → scars

b) Investigations:

- Wood's light exminationof teeth → red teeth (erythrodontia)
- Urine: pink with strong red fluorescence due to marked ↑ in uroporphyrin I
- Stools: ↑ in coproporphyrin I
- RBCs: permanent red fluorescence due to ↑ in uroporphyrin I
- Hemolytic anemia & spleenomegaly

c) Management & prognosis:

- Avoidance of sun with protection of the eyes is essential to minimize scarring & ocular damage
- Progressive mutilation is the rule.
- Hemolytic anemia often causes premature death
- Bone marrow transplantation is a promising cure

Connective tissue cases

Case 1 (Diploma 4/2015)

A 45 years old farmer male presented with well-defined, erythematous lesion on the left cheek that shows adherent scales on the surface.

a) What is the most likely diagnosis?
b) What is the DD of this case?
c) What is the management of this case?

Answer:

a) DLE

Key points:

- Farmer, cheek (sun exposed)
- Well-defined, erythematous, **Adherent** scales

b) DD:

- Actinic keratosis
- Bowen's disease
- Dermatomyositis
- Granuloma annulare
- Granuloma faciale
- Jessner's lymphocytic infiltrate
- Keratoacanthoma
- Atrophic lichen plannus
- Lymphocytoma cutis
- Sarcoidosis
- Leprosy
- Tinea faciei

c) Mangement:

Investigations:

A) Skin biopsy & histopathological examination:

1. Hyperkeratosis with keratotic plugging
2. Atrophy of stratum malpighii
3. Hydropic degeneration of basal cells
4. Thickening of basement membrane (Diagnostic)
5. Patchy perivascular/periadnexal lymphocytic infiltrate
6. Edema, vasodilatation, slight extravasation of erythrocytes & colloid bodies in upper dermis & pigmentry incontinence.

B) Immunostaining study:

1- Direct immunofluorescent:

Granular Ab deposition at dermoepidermal junction & around hair follicle. They are composed primarily of IgG &/or IgM. IgA may occasionally be seen. In addition complement proteins are present.

It is +ve in 90% of involved skin of DLE cases & -ve in uninvolved skin.

DIF of uninvolved sun exposed skin is done to differentiate between SLE & DLE.

2- Indirect immunofluorescent (Fluorescent ANA test):

It is +ve in about 80% of SLE. It not a diagnostic test, it is often used as a screening test to rule out LE. Mouse liver is used as a substrate. It may be seen in old individuals, pregnancy & other autoimmune diseases.

C) Other laboratory tests are done to rule out systemic form:

1. Urine : proteinuria (> 0.5 gm/day) cellular casts & RBCs.
2. Blood : hemolytic anemia, leucopenia (<4000/mm^3), lymphopenia (<1500/mm^3), thrompocytopenia (<100,000/mm^3), lupus antiaggulants.
3. Elevated ESR
4. Biologic false positive Wassermann reaction.
5. LE cell test
6. Low complement level.
7. DNA antibodies: ds DNA , ss DNA
8. Antibodies to extractable nuclear antigens (Anti-Sm, Nrnp Ab, La Ab)
9. Histone antibodies
10. Anti-cytoplasmic antibodies

Treatment:

- Local therapy: sunscreens, corticosteroids, calcineurin inhibitors, retinoids
- Systemic antimarial (drug of choice): hydroxychloroquin 200mg po qd-bid up to 6.5 mg/kg
- For antimarial resistant cases: retinoids, thalidoamide, dapson, corticosteroid

Case 2 (Diploma 4/2011)

A 40 years old female patient presented with well-defined, erythematous patch with adherent scales with underlying dilated hair orifices. Telangiectasia was seen in the patch. Healing occurs with atrophic scar.

a) What is your provisional diagnosis?
b) What are the expected histopathological features?
c) How can you exclude the systemic form of the disease by immunostaining?

Answer:

a) DLE

Key points:

- Well-defined, erythematous patch
- Adherent scales
- Dilated hair orifices
- Telangiectasia
- Atrophic scar

b) HP:

1. Hyperkeratosis with keratotic plugging
2. Atrophy of stratum malpighii
3. Hydropic degeneration of basal cells
4. Thickening of basement membrane (Diagnostic)
5. Patchy perivascular/periadnexal lymphocytic infiltrate
6. Edema, vasodilatation, slight extravasation of erythrocytes & colloid bodies in upper dermis & pigmentry incontinence.

c) Immunostaining:

1- Direct immunofluorescent:

Granular Ab deposition at dermoepidermal junction & around hair follicle. They are composed primarily of IgG &/or IgM. IgA may occasionally be seen. In addition complement proteins are present.

It is +ve in 90% of involved skin of DLE cases & -ve in uninvolved skin.

DIF of uninvolved sun exposed skin is done to differentiate between SLE & DLE.

2- Indirect immunofluorescent (Fluorescent ANA test):

It is +ve in about 80% of SLE. It not a diagnostic test , it is often used as a screening test to rule out LE.

It may be seen in old individuals, pregnancy & other autoimmune diseases.

Case 3 (Diploma Basic 11/2014)

A 45 years old man presented with chronic, sharply demarcated atrophic plaque of 3 years duration with telangiectasia, some hypopigmentation in the middle & hyperpigmentation at the border. The lesion is associated with scarring alopecia.

a) What is the most likely diagnosis?
b) Describe the histipathology picture?
c) What is the DD?

Answer:

a) DLE

Key points:

- Sharply demarcated atrophic plaque
- Telangiectasia
- Hypopigmentation in the middle
- Hyperpigmentation at the border
- Scarring alopecia

b) HP: see before

c) DD: see before

Case 4 (Diploma Basic)

30 years old female presented with a 2 years history of red minimally pruritic well demarcated plaque on her nose. The lesion shows hyperpigmented margin & some central atrophy with exacerbation in summer months. There is an associated scalp scarring alopecia.

a) What is the probable diagnosis?
b) Describe the histopathology?
c) How to investigate such case?

Answer:

a) DLE

Key point:

- Well demarcated plaque
- Hyperpigmented margin
- Central atrophy
- Exacerbation in summer
- Scalp scarring alopecia

b) see before

c) see before

Case 5 (Master 4/2016)

A 35 years old female presented with indurated scarring alopecia on the occipital region of the scalp with stippling of the hair folliciles, hypopigmantationin the central area hyperpigmentation at the periphery of the lesion. There is a similar lesion on the right cheek.

a) What is the diagnosis?
b) Enumerate other clinical variants
c) How can you manage this case (investigations & treatment)?

Answer:

a) DLE

Key points:

- Indurated scarring alopecia
- Stippling of the hair folliciles (dilated)
- Hypopigmantationin the central area
- Hyperpigmentation at the periphery

b) Variants:

1. Localized DLE
2. Disseminated (generalized) DLE
3. Hypertrophic (verrucous) DLE
4. Palmoplanter erosive DLE
5. Papular DLE
6. Rosacea-like DLE
7. Annular atrophic DLE
8. Telangiectatic DLE
9. LE gyratum repense

c) see before

Case 6 (Master 11/2015)

A 21 years old female presented with indurated large plaque over the posterior aspect of left thigh. Extension is ill-defined & overlying skin is sclerotic. Histopathology showed compacted, closely packed hyalinized collagen bundles.

a) What is your diagnosis?
b) DD?
c) Investigations?
d) Management?

Answer:

a) Plaque morphea

Key points:

- 21 years old (middle age 20-40)
- Female (more in females 3:1)
- Indurated large plaque, Skin is sclerotic
- Compacted, closely packed hyalinized collagen bundles

b) DD:

1. Eosinophilic fasciitis
2. Erythema migrans (early)
3. Fixed drug eruption (early)
4. GVHD
5. Granuloma annulare (patch type)
6. Keloids
7. Lichen sclerosis et atrophicus
8. Linear lupus profundus
9. Lipodermatosclerosis
10. Dermatofibrosarcoma protuberans

c) Investigations:

1. Investigations for systemic sclerosis is usually –ve
2. Eosinophilia may occur
3. +ve ANA in 40 % with linear morphea
4. Anti-ssDNA Ab : generalized (75%) ,linear types (53%) ,localized morphea (25%)
5. Serum procollagen type 1 carboxy-terminal propeptide in 30 % of patients.

d) Limited plaque morphea:

1. Topical tacrolimus
2. Phototherapy (NB-UVB, UVA, UVA1)
3. Topical imiquimod
4. Calcipotriol & betamethasone dipropionate.

Genodermatosis cases

Case 1 (Master 11/2010)

A 19-month old boy presented with large, multiple, pigmented patches affecting trunk in symmetrical distribution. There was history of pruritus & urticarial rash.

a) What is the provisional diagnosis & aetiopathogenesis of this condition?

b) What are the possible investigations to confirm your diagnosis?

c) How would you manage this case?

Answer:

a) Urticaria pigmentosa (mastocytosis)

Key points:

- 19-month old
- Multiple, pigmented patches
- pruritus & urticarial rash

Mast cells express KIT receptors, these receptors encoded by c-KIT gene. The ligant of KIT receptor is the stem cell factor, which is an important growth factor for mast cells.

Activating mutation in the c-KIT gene, leads to alteration in KIT structure & activity.

b)

- Serum tryptase levels (α & β), > 20ng/ml represents minor criteria for systemic mastocytosis
- Elevated urinary histamine & its metabolites (MelmAA)
- Elevated urinary PGD2M
- Elevated plasma levels of IL-6

c) ttt:

- Avoid mast cell stimuli (heat, friction, NSAIDS,systemic anesthetic as lidocaine)
- Topical corticosteroid
- Oral H1&H2 receptor antagonist

Case 2 (Master 11/2012)

A 7-year old child was admitted to dermatology department complaining of generalized xerosis, hyperlinearity of palms & soles & personal family history of atopy. There were fine whitish scales all over the body sparing flexural skin. Skin biopsy showed reduced granular layer with moderate hyperkeratosis. The hyperkeratosis was regarded as retention keratosis.

a) What is your diagnosis?

b) Explain the reason of retention keratosis?

c) What is the prognosis?

d) What is the treatment?

Answer:

a) Ichthyosis vulgaris

Key points

- Xerosis, hyperlinearity of palms & soles
- Atopy
- Fine whitish scales
- ***Sparing flexural skin***
- Reduced granular layer
- Hyperkeratosis.

b) Deficiency of serine protease →persistence of Dsg-1 → abnormal persistence of desmosomes → retention hyperkeratosis.

c) The course improves

d) ttt:

Symptomatic ttt to reduce scaling: emollients, ceramide-containing lipid cream, keratolytics, moisturizing cleanser & humidifiers.

Topical retinoids

Vitamin D analogues

Case 3 (Diploma 11/2012)

A 20-years old man presented with yellow to brown dirty, itchy, greasy, hyperkeratotic papules behind ears of 3 years duration. The lesion is associated with longitudinal bands & notching of free edge of nail plate.

a) What is the most likely diagnosis?

b) Describe the histopathology picture?

c) What is the differential diagnosis of this case?

Answer:

a) Darier's disease

Key points:

- A 20-years old man (usually starts before 20)
- Characteristic skin lesion & nail lesion

b)

- Acantholytic dyskeratosis → corps ronds & grains in the granular & horny layer.
- Suprabasal acantholysis → suprabasal clefts or lacunae
- Irregular upward proliferation of villi into the lacunae
- Papillomatosis, acanthosis & hyperkeratosis
- Chronic inflammatory infiltrate in the dermis

c)

- Physiological keratosis pilaris
- Ichthyotic keratosis pilaris
- Keratosis pilaris atrophicans
- Keratosis pilaris spinulosa decalvans
- Phrynoderma
- PRP
- Kyrle's disease

Case 4:

A 40-years old female presented with small yellowish cobblestone papules on the neck giving the appearance of chicken-skin.

1- What other clinical signs would you look for in such a case?

2- How would you fully investigate such a case?

3- Is there any treatment that could help her?

Answer:

1- Pseudoxanthoma elasticum

Key points:

- Yellowish cobblestone papules on the neck
- Chicken-skin

Hyperkeratotic papules, sagging & redundancy of skin of axilla & groin

2- Skin biopsy: histopathological examination: middle & lower layers of dermis, elastic fibers are swollen & irregularly clumped (von Kossa stain)

Fundus examination: angiod streaks of fundi: due to calcification of elastic fibers in the lamina elastic of Bruch's membrane → fissures & hemorrhage → degenerative changes in the retina→ loss of vision

Investigate cardiovascular involvement: gastric mucosa, coronary arteries, large peripheral arteries

3- Recommended therapies to possibly slow the progression of the disease include smoking cessation, moderate physical exercise, and an appropriate diet with supplemented magnesium, phosphate binders, and pyrophosphate analogs.

Prophylactic measures can be undertaken to minimize the disease course

Fractional carbon dioxide laser treatment has been used to improve cosmetic appearance, particularly improving the texture, volume, dispensability, and irregularity of skin lesions

Cardiological & ophthalmological follow up is necessary.

Case 5:

A 12-years old boy started to develop freckles, hypopigmented macules & telangiectasia over sun exposed skin since he was 2 years old. There was positive consanguinity between his parents.

a) What is the provisional diagnosis& aetiology of this condition?

b) What are the common complications?

c) How would you manage this case?

Answer:

a) Xeroderma pigmentosa

Key points:

- 12-years old
- Freckles, hypopigmented macules & telangiectasia
- Sun exposed
- Positive consanguinity

Decreased excision repair due to deficiency of DNA endonuclease

b) Complicaion:

- Malignant tumors as KA, SCC, BCE, fibrosarcoma, malignant melanoma
- Ocular lesions: photophobia, conjunctivitis, keratitis, corneal opacities
- Neorological abnormalities due to defective DNA repair in nerve cells leading to neuronal death

c) Management:

- Sunscreens
- Oral calcium & vitamin D supplementation

Case 6 (Master 5/2015)

Female pt 45 years old presented with asymptomatic, multiple, rounded, well-defined, raised edge, dry plaques on face 1 year duration. Skin biopsy shows areas of hyperkertosis, column of parakeratosis, hypogranulosis, dyskeratotic cells, area of spongiosis & upper dermal inflammatory infiltrate.

a)What is the diagnosis & DD of this case?

b) Mention other types of this disease?

c) How to manage?

Answer:

a) Porokeratosis

Key points:

- Raised edge, dry plaques
- Column of parakeratosis
- Dyskeratotic cells

DD:

- Actinic keratosis
- Annular atrophic lichen plannus
- Elastosis perforans serpiginosa
- Granuloma annular
- Pityriasis rotunda
- Psoriasis
- SCC
- Superficial BCC

b)

- Plaque type (Mibelli)
- Disseminated superficial form
- Disseminated superficial actinic form
- Linear form
- Punctate form
- Giant porokeratosis
- Hyperkeratotric porokeratosis

c)

- Excision for small lesions
- Cryosurgery
- Topical 5-Fluorouracil ± topical retinoids
- Sunscreens
- Topical imiquimod
- Oral acitritin in refractory lesions

Granuloma cases

Case 1 (Master 4/2012)

A 45 years old female presented with papulo-nodules & plaques affecting the nose, ear & cheeks of 6 months duration. There were cystic lesions of distal phalanges. The histopathology of skin biopsy is an epithelioid granuloma.

a) What is your diagnosis?

b) What are the investigations for such case?

c) How can you treat this patient?

Answer:

a) Sarcoidosis (lupus pernio)

Key points:

- 45 years old (middle age)
- Female (women: men 3:1)
- Papulo-nodules & plaques
- Nose, ear & cheeks
- Cystic lesions of distal phalanges
- Epithelioid granuloma

b) Investigation:

- ↑ ESR, leucopenia, eosinophilia & thrombocytopenia
- Hypercalcemia
- Hypergammaglobulinemia, ↑ serum alkaline phosphatase (bone affection)
- ↑ACE (diagnostic)
- X-ray – hilar adenopathy punched-out lesions of distal phalanges

c) ttt:

- Systemic corticosteroid: 40 mg prednisolone daily
- Cytotoxic drugs : methotrexate, azathioprine
- Antimalarial (chloroquine 250 mg twice daily)
- Allopurinol, thalidomide, PUVA
- Topical or intra-lesional steroids

Case 2 (Master 11/2006)

Female patient 60 years old had large bluish-red & dusky violaceous infiltrated nodules & plaques on the nose, fingers & hands. Skin biopsy revealed aggregates of epithelioid cells (naked tubercle) in the dermis.

a) What is your diagnosis?

b) Enumerate the classical forms of this disease?

c) Treatment?

Answer:

a) Sarcoidosis

Key points:

- Bluish-red & dusky violaceous nodules & plaques
- ***Naked tubercle***

b) Forms:

- Maculopapular sarcoid (military sarcoid)
- Plaque form
- Nodular form
- Annular form
- Lupus pernio
- SC nodular sarcoidosis
- Scar sarcoidosis
- Angiolupoid
- Mucosal lesions
- Uncommon specific lesion: lichenoid, erythrodermic, ichthyosiform, ulcerating, psoriasiform, verrucous form

c) ttt:

- Systemic corticosteroid: 40 mg prednisolone daily
- Cytotoxic drugs : methotrexate, azathioprine
- Antimalarial (chloroquine 250 mg twice daily)
- Allopurinol, thalidomide, PUVA
- Topical or intra-lesional steroids

Case 3 (Master 4/2014)

A 27 years old female patient presented with asymptomatic, small, smooth & firm red papules on the right arm of 2 months duration. On examination, the lesion are closely set with no overlying scales.

a) What is the most likely diagnosis?

b) Describe its characteristic histopathology?

c) Describe other clinical variants of this disease?

d) What is the most likely treatment?

Answer:

a) Granuloma annulare

Key points:

- Asymptomatic, small, smooth & firm red papules
- Closely set
- No overlying scales.

b) Central zone of collagen & elastin degeneration surrounded by an infiltrate composed mainly of histiocytes in palisading arrangement. Mucin can be seen within collagen degeneration. Vascular changes : fibrin, C3 & IgM deposition in vessel walls & occlusion of vascular lumina ± perivascular lymphocytes/eosinophils.

c) Variants:

- Generalized GA
- SC nodular GA
- Perforating GA
- Erythematous GA
- Deep, destructive GA
- Granuloma multiforme
- Patch GA

d) ttt: - Topical steroid

- Topical calcineurin inhibitors

- Destructive modalities: cryotherapy, surgical excision, CO2 laser, radiotherapy

Case 4 (Master 11/2011)

A 25 years old male presented with multiple dusky-red papulo-nodular lesions on his face. Biopsy revealed granulomatous inflammation.

a) Mention 4 DD

b) Describe the type of granuloma & ttt options in each case?

Answer:

DD :

- Sarcoidosis
- Rosacea
- Lupus vulgaris
- Granuloma faciei
- Lupus Miliaris Disseminatus Faciei
- Leishmaniasis
- Mycosis fungoides
- Erythema nodosum
- Lupus erytheromatosus
- Kaposi sarcoma

1- Sarcoidosis:

- Non-pathological classification: Idiopathic allergic granuloma
- Etiological classification: Non-infectious granuloma
- Pathological classification: Sarcoidal granuloma (naked tubercle)

Non-caseating epithelioid cells tubercles in the dermis, slight admixture of lymphoid cells at margin (naked tubercle).there is little central fibrinoid necrosis& very few giant cells which may contain asteroid or Schaumann bodies. Epidermis normal or atrophic.

ttt:

- Systemic corticosteroid: 40 mg prednisolone daily
- Cytotoxic drugs : methotrexate, azathioprine
- Antimalarial (chloroquine 250 mg twice daily)
- Allopurinol, thalidomide, PUVA
- Topical or intra-lesional steroids

2- Lupus vulgaris:

- Non-pathological classification: Infectious allergic granuloma
- Etiological classification: Infectious granuloma
- Pathological classification: Tuberculoid granuloma

Tuberculoid structures composed of epithelioid cells & langhans giant cells embedded in dense mononuclear cells (lymphocytes & monocytes) with slight or absent caseation necrosis & TB bacilli are difficult to demonstrate. Epidermal changes as atrophy, ulceration, hypertrophy or pseudoepitheliomatous hyperplasia.

ttt:

- Anti-TB drugs
- Calciferol (Vit. D2): 150,000 U for 5 days a week
- Surgical excision

3- Rosacea:

Foreign body reaction against keratinized cells of disintegrated hair structures or against elastosis material. The granulomas may represent delayed hypersensitivity reaction to the mite Demodex folliculorum. It is tuberculoid granuloma

ttt:

1- Avoid PF: heat, cold, sun light, spices, alcohol

2- Systemic:

- Tetracycline 250mg 3 times daily, 3-4 weeks
- Metronidazole 200 mg once or twice daily 4-6 weeks
- Isotretinoin 10-40 mg daily
- Erythromycin 30-50 mg/kg/day

3- Topical:

- Metronidazole cream
- Azelaic acid gel
- Pimecrolimus cream twice daily
- Tacrolimus cream twice daily

4- Plastic surgery for rhinophym

5- Laser & light therapies:

- Vascular laser therapy
- IPL therapy

4- Lupus Miliaris Disseminatus Faciei:

There is no evidence (apart from histology) to support tuberculous etiology & it does not respond to anti-TB drugs. It may be related to rosacea.

Large tubercles composed of epithelioid cells & some giant cells with central caseation necrosis. Inflammatory infiltrate peripherally.

ttt: long term therapy with tetracycline, monicycline or isotretinoin.

Case 5 (Master 4/2011)

A 35 years old lady presented with asymptomatic persistent skin lesions on the face of 8 months duration. The lesions were reddish brown in color with telangiectatic surface. Histopathology revealed non-caseating epithelioid granulomas.

a) What is your diagnosis?

b) What are other varieties of the disease?

c) Give the treatment options of this case?

Answer:

a) Lupus vulgaris

Key points:

- Reddish brown
- Non-caseating epithelioid granulomas

b) Varieties:

- Plaque form
- Ulcerative & mutilating form
- Vegetating form
- Tumor-like forms (hypertrophic)
- Papular & nodular forms

c) ttt:

- Anti-TB drugs
- Calciferol (Vit. D2): 150,000 U for 5 days a week
- Surgical excision

Case 6 (Diploma Basic 11/2011)

A 50 years old female presented with red brown plaques appears as soft papulonodular lesions on left cheeks & ear. The lesion extends peripherally with tendency to central scarring.

a) What is the probable diagnosis?

b) Describe the histopathology?

c) What is the treatment of this case?

Answer:

a) Lupus vulgaris

Key points:

- Red brown plaques
- ***Soft*** papulonodular
- Cheeks & ear
- Central scarring

b) Tuberculoid structures composed of epithelioid cells & langhans giant cells embedded in dense mononuclear cells (lymphocytes & monocytes) with slight or absent caseation necrosis & TB bacilli are difficult to demonstrate. Epidermal changes as atrophy, ulceration, hypertrophy or pseudoepitheliomatous hyperplasia.

c) ttt:

- Anti-TB drugs
- Calciferol (Vit. D2): 150,000 U for 5 days a week
- Surgical excision

Hair & Sebaceous glands cases

Case 1:

Female patient aged 20 years old complaining of appearance of hair on the beard & moustache areas since 3 years with menstrual disturbances. What is your diagnosis, etiology,management?

Answer:

a) Hirsutism

b) Etiology of this case: Ovarian hirsutism: polycystic ovary syndrome

Other causes of the disease:

1- Constitutional hirsutism (familial, adrenal, ovarian, hyperprolactinemic)

2- Endocrine organ-based hirsutism

a) Adrenal hirsutism

- Non-tumoral : adrenal hyperplasia, hypercortisolism

- Tumoral: virilizing adrenal adenoma or carcinoma.

b) Ovarian hirsutism:

- Non-tumoral: polycystic ovary syndrome, hyperthecosis

- Tumoral: ovarian tumor

c) Pituitary hirsutism: ↑ACTH, prolactin

3- Hirsutism due to ectopic hormone production: ACTH by lung carcinoma,β-HCG by choriocarcinoma

4- Iatrogenic hirsutism: due to anabolic steroids

5- Hepatic hirsutism with liver diseases

6- Hirsutism due to peripheral failure in converting androgens into estrogens.

c) Management:

Evaluation:

I) History: age of onset, rate of progression, virilizing symptoms, menstrual, family, medication & pregnancy histories.

II) Examination:

1. Degree of hirsutism using Ferriman & Gallwey scoring system.
2. Other signs of virilism
3. U/S, CT, MRI of abdomen & pelvis if tumor is suspected.

III) Laboratory:

1. Total testosterone >200 ng/ml → androgen producing tumor
2. DHEA-S > 700 µg/dl → adrenal tumor
3. ↑ 17-hydroxy-progesterone → CAH
4. PCO: ↑ testosterone, DHEA-S & LH, normal or ↓ FSH, LH:FST > 3:1
5. Free androgen index = total T/SHBG X 100, normal values in women 7- 10.
6. ACTH stimulation test
7. Dexamethasone suppression test
8. 3 α-androstanediol glucuronide

Treatment:

1- Cosmetic methods: hair bleaching, shaving, electrolysis, laser, IPL

2- Ttt of neoplastic causes of hyperandrogenism: surgery, irradiation, chemotherapy

3- Ttt of non-neoplastic causes of hyperandrogenism:

- Suppression of adrenal androgen:

  - Dexamethasone 0.25-0.5 mg/d in evening for 3 months

  - Prednisone 7.5 mg/d for 2 months→ 5 mg/d for 2 months→ 2 mg/d for 6 months

- Suppression of ovarian androgen: (OCP) GRH agonist 3.75 mg every 28d for 6 months
- Suppression of pituitary gonadotropin release: GTRH agonist

- Androgen receptor blockades:

  - Spironolactone: 50-200 mg/d for 6 months

  - Cyproterone acetate: 20mg or 100mg/d from day 5 to day 14

  - Cimetidine: 300 mg 5 times/d

  - Flutamide: 125-500 mg/d

- 5 α reductase inhibitor: finasteride 5mg/d
- Ketoconazole 400-1200 mg/d

4- Supression of pituitary prolactin production:

- Bromocriptine 2.5-7.5 mg/d
- Cabergoline once weekly

5- Metformin :PCOS

6- Topical: eflornithine twice daily

7- Iatrogenic: stop responsible drug

Case 2 (Master 11/2006)

A male patient 18 years old presented with lesions confined to the face associated with seborrhea. The lesions consist of inflammatory papules, pustules & nodules.

1- What is your diagnosis?

2- What other clinical signs you expect to find in this case?

3- Give short account on the variants of this condition?

4- Comment on the pathogenesis of this condition?

5- Write a short account on DD & treatment?

Answer:

1- Acne vulgaris

Key points:

- 18 years old
- **Seborrhea**
- Inflammatory papules, pustules & nodules

2- **Comedones**, post inflammatory erythema, pigmentation, scarring

3- Variants (with short notes):

- Acne vulminans
- Acne conglobata
- Gram –ve folliculitis
- Post-adolescent acne
- Neonatal acne
- Infantile acne
- Excoriated acne
- Solid facial edema
- Acne mechanica
- Drug-induced acne
- Acne due to external chemical origin
- Endocrinologic abnormalities

4- Pathogenesis (with short notes):

- Indreased sebum production
- Ductal hypercornification (comedone)
- Proliferation of p.acne
- Inflammation

5- DD:

- AV (comedonal):

  - Closed: milia, sebaceous hyperplasia, syringoma, trichoepithelioma

  - Open: contact, Favre-Racouchot disease, nevus comidonicus

- AV (inflammatory): Rosacea, acneiform eruptions, fruncles, LMDF
- Neonatal acne: milia, sebaceous hyperplasia, miliaria rubra, candidal infections

Treatment (with short notes):

Topical:

Benzoyl peroxide, Retinoids, Antibiotics, Sulphur ppt 2%, Steroid, azelaic acid 20%, dapsone

Systemic:

Antibiotic, hormones, anti-androgen, retinoids

Other lines

Case 3 (Master 4/2016):

A 45 years old female patient presented with a 5-years old history of flushing of her face with spotty rash, examination reveals pustular rash on both cheeks without comedones.

a) What is the diagnosis of this case?

b) How can you manage this case (investigations & treatment)?

Answer:

a) Rosacea

Key points:

- 45 years old (30-50y), Female
- Flushing
- Pustular rash on both cheeks **without comedones**

b) Management:

Investigation:

1- Histopathological examination:

Vascular dilatation, non-specific perivascular inflammatory infiltrate & solar elastosis. Tuberculoid picture may be found with epithelioid cells & giant cells. The presence of granulomatous formation is explained as foreign body reaction against keratinized cells of disintegrated hair structures or against elastotic material. Granuloma may represent delayed hypersensitivity reaction to the mite Demodex folliculorum.

2- Dermoscope:

Dilated vessels, prominent telangiectasia, large polygonal vascular net.

Treatment:

1- Avoid PF: heat, cold, sun light, spices, alcohol

2- Systemic:

- Tetracycline 250mg 3 times daily, 3-4 weeks
- Metronidazole 200 mg once or twice daily 4-6 weeks
- Isotretinoin 10-40 mg daily
- Erythromycin 30-50 mg/kg/day

3- Topical:

- Metronidazole cream
- Azelaic acid gel
- Pimecrolimus cream twice daily
- Tacrolimus cream twice daily

4- Plastic surgery for rhinophyma

Case 4 (Diploma 11/2010):

A 45 years old female patient presented with flushing, non-transient erythema & intermittent eruption of erythematous papules & pustules on the face.

a) What is the diagnosis of this case?

b) What are the DD?

c) What is the treatment of the disease?

Answer:

a) Rosacea

Key points:

- 45 years old (30-50y), female
- Flushing
- Non-transient erythema
- Erythematous papules & pustules

b) DD:

- Acne vulgaris
- Granuloma faciale
- LMDF
- Lupus vulgaris
- Sarcoidosis
- Seborrheic dermatitis
- Syringoma
- Tinea faciei
- Trichoepithelioma
- Photosensitive drug eruption
- Polymorphous light eruption
- Recurrent erysipelas

c) *Treatment:*

1- Avoid PF: heat, cold, sun light, spices, alcohol

2- Systemic:

- Tetracycline 250mg 3 times daily, 3-4 weeks
- Metronidazole 200 mg once or twice daily 4-6 weeks
- Isotretinoin 10-40 mg daily
- Erythromycin 30-50 mg/kg/day

3- Topical:

- Metronidazole cream
- Azelaic acid gel
- Pimecrolimus cream twice daily
- Tacrolimus cream twice daily

4- Plastic surgery for rhinophyma

Hypersensitivity reactions cases

Case 1 (Diploma 6/2006)

A man 25 years old presented with sudden appearance of pink itchy wheals, which can come up anywhere on the skin surface. Each lasts for less than a day, and most disappear within few hours. Lesions, may enlarge rapidly & some resolve centrally to take up an annular shape.

a) What is your diagnosis, investigations & treatment?

b) Give short notes on other types of this case.

Answer:

a) Ordinary urticaria

Key points:

- Wheals
- Less than a day

Investigations:

1. Acute: IgE, tests for upper respiratory infections
2. Episodic: pseudoallergy challenge capsules: food additives, NSAIDs
3. Chronic:

- Physical challenge tests
- Blood: ESR, thyroid Ab, C4, autologous serum skin test
- Stool examination for parasites
- Testing for H. pylori
- Testing for Celiac disease
- Biopsy (for 12-16 hrs old lesion, if urticarial vasculitis is suspected)
- Imaging

Treatment:

1st line: anti-Histamines

2nd line: oral steroid, anabolic steroid, mast-cell stabilizer, NB-UVB

3rd line: immunotherapy, plasmapharesis, IVIg , cyclosporine, omalizumab

Emergency: epinephrine

c) Other types (with short notes):

1- Physical urticaria:

- Dermographism
- Delayed pressure urticaria
- Solar urticaria
- Cold urticaria
- Heat urticaria
- Cholinergic urticaria
- Adrenergic urticaria
- Aquagenic urticaria
- Vibratory urticaria

2- Urticarial vasculitis

3- Contact urticaria

4- Angioedema without wheal

5- Distinctive urticarial syndromes

Case 2 (Diploma 5/2013)

A 4 years old male child presented with recurrent itching & symmetrical excoriated lesions in both cubital & popliteal fossae of 2 years duration. No family history of similar condition, but his father had suffered from bronchial asthma.

a) What is your diagnosis?

b) What are the diagnostic criteria of this disease?

c) What are different lines of treatments?

Answer:

a) Atopic dermatitis

Key points:

- 4 years old
- Itching & symmetrical excoriated lesions
- Cubital & popliteal fossae
- Bronchial asthma (family history of atopy)

b) Diagnostic criteria:

3 major:

- Pruritus
- Chronic dermatitis
- Typical morphology & distribution
- History of atopy

3 Minor:

- Early onset
- IgE
- Type I HSR
- Xerosis
- Ichthyosis

- Conjunctivitis
- Keratoconus
- Cataract
- Periorbital darking
- Dennie-Morgan infraorbital folds

- Cheilitis
- Anterior neck fold
- Nipple dermatitis
- Perifollicular accentuation
- Non-specific hand & feet dermatitis

- Environmental & stress
- Sweating → itching
- Cutaneous infections
- Intolerance to solvents
- Intolerance to food
- Pallor, p.alba, white dermographism

c) Treatment:

1. Educational programmes: about skin care, triggers, management
2. Avoid triggering factors: allergens (dust mites, pollens), sweating, harsh soaps, wool, stress
3. Reduction of bacterial colonization: cleansers & emollients containing antiseptics
4. Skin care: emollients twice daily
5. Sedating antihistamines at bed time
6. Topical anti-inflammatory therapy: corticosteroid, calcineurin inhibitors
7. Systemic anti-inflammatory therapy: corticosteroid, (MTX- azathioprine- cyclosporine)
8. Phototherapy: NB-UVB, UVA1
9. Biologic: anti-IgE monoclonal Ab (Omalizumab), anti-CD20 monoclonal Ab (rituximab)

Infections cases

Case 1 (Basic 11/2010)

A 5 years old child presented with nummular patch on the scalp, characterized by fine scales, broken-off hairs & well defined margins.

a) What is your most likely diagnosis?

b) How can you confirm your diagnosis by both office technique(s) & laboratory investigations?

c) Mention the types & levels of hair invasion?

Answer:

a) Tinea capitis

Key points:

- 5 years old child
- Fine scales, broken-off hairs

b)

1- Direct microscopic examination:

Hairs & scrapings are mounted in 20% KOH on a glass slide & covered with a cover slip. It warmed gently & left for 20 min. Dermatophytes are identified by presence of translucent, non-pigmented, septate mycelium & arthrospores.

2- Culture:

On Sabouraud's agar medium, at room temperature. Dermatophyte test medium, color change of phenol red from yellow to red caused by the release of alkaline metabolites by the dermatophytes.

3- Wood's light:

- M.canis & M.audouinii → brilliant green
- T. schoenleinii → pale green
- T. violaceum → no fluorescence

4- Histology:

- Gomori methenamine silver: outlines fungal elements black
- Periodic acid-Schiff: outlines fungal elements magenta with green background
- Fontana-Masson: stains dematiaceous fungi

5- PCR: early & accurate identification

c) Types (with short notes):

- Scaly tinea capitis (small spore ectothrix)
- Black dot tinea capitis (Endothrix)
- Kerion
- Favus (favic type)

Pattern of hair invasion (with short notes):

- Small spore ectothrix
- Large spore ectothrix
- Endothrix
- Favic type

Case 2 (Basic 4/2011)

A 7 years old female school child living in a rural area presented with localized scaly patch with short stumps of hair on scalp of 1 month duration.

a) What is your most likely diagnosis?

b) Describe the laboratory investigations to confirm the diagnosis (mention how to collect the sample)

Answer:

a) Tinea capitis

Key points:

- 7 years old, school child
- Localized scaly patch
- Stumps of hair

b) Collection of the sample:

- Scrapping from the definite edge with sterile scalpel
- Hair should be plucked with forceps
- Specimens are best collected in folded slips of paper

The laboratory investigations: see before

Case 3 (Basic 4/2011)

A male patient is complaining from unilateral painful eruption of groups of vesicles on erythematous base on the forehead, upper eyelid with edema.

a) What is the probable diagnosis?

b) How can you confirm the diagnosis?

c) What is the causative organism? What are its characteristic features?

Answer:

a) Herpes zoster

Key points:

- **Unilateral**
- Painful eruption of groups of vesicles on erythematous base

b)

- Culture: grow in tissue cultures with human fetal diploid kidney cells.
- Tzanck smear: multinucleated epithelial giant cells.
- Serology: diagnostic when there is at least four-fold increase in VZV titer
- PCR: highly sensitive & rapid

c) Varicella zoster virus

1ry infection occur in patient without resistance → chicken pox, after subsidence of 1ry attack the virus remains dormant in sensory ganglia → latency, reactivation & spread to skin → herpes zoster

Case 4 (Basic 4/2011)

A mentally defective male complaining from generalized erythema & scaling, palmoplanter hyperkeratosis, generalized LN enlargement & eosinophilia with family history of night itching.

a) What is your most likely diagnosis?

b) How can you confirm your diagnosis by office technique?

c) Mention all possible lines of treatment for this case?

d) Give a full account on the causative organism?

Answer:

a) Norwegian scabies (crusted scabies)

Key points:

- Mentally defective
- Generalized erythema & scaling
- Palmoplanter hyperkeratosis
- Generalized LN enlargement & eosinophilia
- Family history of night itching

b)

- Light microscopic examination of mineral oil preparations of skin scraping for adult mites, eggs, fecal pellets
- Intradermal testing (extract from female mites)
- Dermoscopy: dark triangles (anterior part of the mite), linear segment (burrow), eggs, feces with high magnifications
- Confocal microscopy: mites , eggs

c)

General:

- Following a hot bath with harsh brush, topical scabicide should be applied overnight to the whole body except head.
- Examine & treat contacts
- Boiling cloths & towels
- 2nd treatment after 1-2 weeks

Systemic:

- Methotrexate
- Ivermectin: 250-400 µg/kg PO single dose, 2-3 doses with 1-2w interval may be needed
- Antihistamines for itching
- Antibiotics for 2ry infections

Topical (with short notes):

- Synthetic pyrethroid permethrin 5%
- Sulphur ointment
- Crotamiton 10% cream
- Gamma benzene hexachloride
- Malathion 0.5% lotion
- Benzylbenzoate 10% & 25% lotions
- Ivermectin1% lotion

d) Sarcoptes scabiei var. hominis:

- An 8-legged mite
- Fertilized female mite is responsible for infection
- Subsist on dissolved human tissue not blood
- 30-day life cycle completed within the epidermis
- Female mite invades stratum corneum forming a burrow.
- Deposites 2-3 eggs/day
- Burrows at night & lays eggs during the day
- Crawl 2.5 cm/min
- After 3-4 days, the eggs hatch →larva → 7 days to mature
- Average number of female mite is 12/patient & millions in Norwegian scabies
- IP: 14 days

Case 5

A 30 years old male was working abroad in Saudi Arabia. He started to develop an erythematous papule over his cheek, which gradually enlarge forming a plaque which started to ulcerate in some areas.

a) What is your provisional diagnosis?

b) Enumerate the clinical types?

c) Describe the histopathology, DD, treatment of this condition?

Answer:

a) Leishmaniasis

Key points:

- Papule → plaque→ ulcerate
- Cheek (exposed site)
- Saudi Arabia (endemic area)

b) Clinical types:

I) Old world cutaneous leishmaniasis:

- Acute cutaneous leishmaniasis (rural form, urban form)
- Chronic leishmaniasis
- Diffuse cutaneous leishmaniasis

II) New world cutaneous & mucocutaneous leishmaniasis:

- Cutaneous lesions
- Mucocutaneous lesions

III) Visceral leishmaniasis (Kala Azar)

c) *HP:*

Before ulceration, there is dermal infiltrate of macrophages filled with leishmania-Donovan bodies, lymphoid & plasma cells. With ulceration, influx of neutrophils occur. Lateron, there is reduction in the number of organisms & macrophages, granulomatous infiltrate occurs with epithelioid cells & multinucleated giant cells. It is visible with routine stains, but best seen with Giemsa stain.

DD:

- BCC
- SCC
- Lepromatous leprosy
- Sarcoidosis
- Syphilis
- Tropical ulcer
- TB
- Wegener's granuloma

Treatment (with short notes):

A) Medical:

- Parental: pentavalent antimonial, amphotericin B, pentamidine
- Oral: ketoconazole, itraconazole, allopurinol, dapsone
- Topical: intralesional Sb injection

B) Non-medical:

- Cryotherapy
- Heat therapy
- Surgical excision

C) Prevention & control

Papulosquamous cases

Case 1 (Master 11/2011)

A 35 years old pregnant female presented with scaly plaques & pustules coalescing into lakes of pus affecting flexors, groins & trunk. The rash is associated with fever, nausea, vomiting & diarrhea.

a) What is your diagnosis?

b) What are the histopathological features of this condition?

c) Give the DD

d) What is the outcome of this condition on the fetus & mother?

e) What is the management?

Answer:

a) Impetigo herpitiformis (variant of pustular psoriasis)

Key points:

- Pregnant
- Scaly plaques & pustules coalescing into lakes of pus
- Flexors, groins
- Fever, nausea, vomiting & diarrhea

b) HP:

1. Parakeratosis with Munro-microabscesses
2. Absence of granular layer
3. Acanthosis, regular elongation of rete ridges & thickening of their lower portion (clubbing)
4. Elongation & edema of dermal papillae& dilated capillaries
5. Relative thining of suprapapillary portion
6. **Macropustules of Kogoj**
7. Perivascular mononuclear infiltrate

c) DD: Other dermatoses of pregnancy (with short notes)

- Intrahepatic cholestasis of pregnancy
- Herpes gestationis
- PUPPP
- Atopic eruption of pregnancy

d)

- Resolve post-partum, may recur with subsequent pregnancies
- Stillbirth & placental insufficiency

e) Prednisone 40 mg/day, calcium, termination is indicated

Case 2 (Diploma)

A 25 years old pregnant woman (primigravida, 34 weeks of gestation) complaining of extremely pruritic erythematous papules distributed & confluent within striae distensa on the abdomen. There are no mucous membrane lesions & periumbilical area is spared.

a) What is your diagnosis?

b) What are other DD?

c) What are the treatment options?

Answer:

a) PUPPP (pruritic urticarial papules &plaques of pregnancy)

Key points:

- Pregnant
- Primigravida
- 34 weeks of gestation (late onset in 3rd trimester)
- Extremely pruritic
- Confluent within **striae** distensa
- Periumbilical area is spared (to exclude herpes gestationis)

b) DD: Other dermatoses of pregnancy (with short notes)

c) ttt:

- Antihistamines
- Short courses of oral prednisone
- Topical corticosteroid, antipruritics

Case 3 (Master 6/2006)

A young adult patient with recent history of streptococcal pharyngitis & subsequent rapid onset of a shower of small (2mm-1cm) widespread erythematous hyperkeratotic scaly macules & papules, on the upper trunk & proximal extremities. The scales are silvery white.

a) What is your diagnosis, DD, treatment?

b) Mention other diseases caused by streptococci?

Answer:

a) Guttate psoriasis

Key points:

- Streptococcal pharyngitis
- Erythematous hyperkeratotic scaly macules & papules
- Scales are silvery white.

DD:

- Disseminated histoplasmosis
- Eruptive lichen planus
- Pityriasis lichenoides chronic
- Pityriasis rosea
- Psoriasiform drug eruption
- Scabies
- Scarlet fever
- Secondary syphilis
- Small plaque parapsoriasis
- Viral exanthema

Ttt (with short notes):

- Topical: Corticosteroid, Calcipotriol , Dithranol paste, Tar, tazarotene, salisylic acid
- Photochemotheray
- Systemic: methotrexate, acitretin, cyclosporine, biologic

b) Other diseases caused by streptococci:

- Streptococcal toxic shock syndrome
- Sweet's syndrome
- Scarlet fever

Case 4 (Master 6/2006)

Male patient 35 years old complained of generalized scaly skin lesions 10 years ago, the crops of military pustules developed at intervals & transition to generalized pustules & erythema, affected more than 90% of the body surface, after treatment with potent topical steroid.

a) What is your diagnosis?

b) Other causes of this condition?

c) Treatment?

Answer:

a) Generalized pustular psoriasis

Key points:

- Generalized pustules & erythema
- Potent topical steroid

b) Other causes:

- Irritant topical: tar, dithranol
- Infections
- Sunlight
- Pregnancy
- Hypocalcaemia
- Drugs: salicylates, progesterone, corticosteroid with drawal

c) ttt:

- Withdrawal of provocative factor
- Hospitalization: correct electrolytes & protein imbalance
- Topical: weak steroid
- Systemic: acitretin (drug of choice), methotrexate, cyclosporine, biologic, PUVA

Perforating dermatosis

Case 1 (Master 11/2012)

A 60 years old diabetic female patient presented with widely scattered pruritic follicular papules & nodules with keratotic plugs. The lesions affected the lower extremities.

a) What is the provisional diagnosis?

b) What is the histopathology of this case?

c) What are the DD?

d) How can you treat this case?

Answer:

a) Perforating folliculitis

Key points:

- Diabetic
- Pruritic follicular papules
- Keratotic plugs
- Lower extremities

b) HP:

Dilated follicle contains eliminated materials: basophilic debris, eosinophilic elastic fibers, ortho-& parakeratotic material & inflammatory cells. Perforations are seen in the follicular infundibular epithelium.

c) DD: Other perforating dermatoses:

Primary:

- Kyrle's disease
- Reactive perforating collagenosis
- Elastosis perforans serpiginosa

Secondary:

- Granuloma annulare
- NBL
- Rheumatoid nodules
- Sarcoid
- Lichen nitidus

- PXE
- Solar elastosis
- Porokeratosis
- Alopecia mucinosis
- Popular mucinosis

d) ttt: topical tretinoin

Tumors cases

Case 1 (Master 11/2013)

A 67-years old female presented with itchy persistant erythematous well demarcated indurated plaque affecting the perineum of 1 year duration. The patient received many topical treatment without benefit. Histopathology was done & revealed the presence of intra epidermal large round pale staining cells with large nuclei with ample cytoplasm, cells may be present singly or in nests.

a) What is your diagnosis?

b) What are the possible DD for this case?

c) Mention the possible underlying malignancy associated with this case?

d) How can you manage this case?

Answer:

a) Extramammary Paget's disease

Key points:

- 67-years old
- Itchy
- Persistant erythematous
- Well demarcated
- Large round pale staining cells with large nuclei with ample cytoplasm (Paget cells)

b) DD

- Bowen's disease
- Candidiasis
- Contact dermatitis
- Erythrasma
- Hailey-Hailey disease
- Intertrigo
- Lichen sclerosis
- Tinea cruris
- Superficial spreading melanoma

c) Adnexal adenocarcinoma in the dermis in 25% of casesIt may be 2ry to extension of an adenocarcinoma of the rectum to perianal region , or of the cervix to the vulva, or of the urinary bladder to the urethra.

d) Surgical excision

Case 2 (Master 4/2011)

A 53 years old female presented with single, pruritic, marginated, crusted lesion affecting right nipple of 8 months duration. Histological examination revealed thickened epidermis with atypical round cells in cluster pattern.

a) What is your diagnosis?

b) What is the clinical DD?

c) What is the other clinical variety of this disease?

d) How would you manage this case?

Answer:

a) Paget's disease of the breast

Key points:

- 53 years old (old age)
- Female (almost exclusively in women)
- Pruritic, marginated, crusted
- Right nipple (Unilateral)
- Atypical round cells

b) DD

- Atopic dermatitis
- Bowen's disease
- Fixed drug eruption
- Irritant dermatitis
- Melanoma
- MF
- Nipple eczema
- Psoriasis
- Seborrheic dermatitis

c) Extramammary paget's disease

d) Modified radical mastectomy

Case 3 (Master 5/2014)

A 73-years old male patient complaining of asymptomatic skin lesions affecting the lower part of the left leg of 6 months duration. On examination the lesions are multiple, violaceous compressible papules & nodules. The course is slowly progressive.

a) What is your diagnosis?

b) Mention the other clinical varieties of this disease?

c) What are the histopathological criteria of this case?

d) What is your management?

Answer:

a) Kaposi sarcoma

Key points:

- 73-years old (old age)
- Multiple, violaceous ***compressible***

b) Classical KS, Endemic African KS, Iatrogenic KS, Epidemic KS

c) Early lesions: Capillaries are dilated & increased in number, endothelial cells are large& may protrude into the lumen, diffuse chronic inflammatory infiltrate, extravasated erytherocytes, hemosidrin deposition

Late lesions: Vascular formation with predominance of endothelia cell, Spindle cell formations containing vascular slits filled with erytherocytes, edematous stroma contains extravasated erytherocytes.

d) Local: excision, cryotherapy, laser therapy, photodynamic therapy, radiotherapy
Intralesional injection: vinblastin, sclerosing agents (3% sodium tetradecyl sulfate), INF α (3-5 milion U/3times/week for 4 weeks)

Systemic: Immunotherapy (INF α 30-60 milionU/d, INF α + Zidovudine

Chemotherapy: single agent :vinblastine , compined: vinblastine + vincristine

Case 4 (Master 11/2010)

A 10 years old female child presented with persistent hypopigmented patches of 6 months duration, covering about 10% of the body surface area. The lesions were pruritic & the histopthological study showed atypical lymphocytes in epidermis.

a) What is your diagnosis?

b) What is clinical DD?

c) Mention the other clinical types of the disease?

d) Enumerate different ttt lines of this case?

Answer:

a) Mycosis fungoides

Key points:

- 10 years (hypopigmrented MF found in child or back &buttocks)
- Persistent hypopigmented
- Atypical lymphocytes in epidermis (Epidermotropism ***diagnostic***)

b) DD

- Atopic dermatitis
- Pityriasis alba
- Lichen sclerosis
- Morphea
- Nevus anemicus
- Nevus depigmentosus
- Sarcoidosis
- Tinea versicolour
- Tuberous sclerosis
- Vitiligo

c)

- Classical
- Bullous
- Hyperpigmented
- Folliculotropic

- Pagetoid reticulosis
- Granulomatous slack skin

d) Patch 10% = stage I

- Topical corticosteroid or topical bexarotene
- NB-UVB
- Local radiotherapy
- Total skin electron beam

Case 5

A 50 years old farmer developed a nodule above the inner canthus of the eye which progress into an ulcer with beaded edges.

a) What is the likely diagnosis?

b) Describe the histopathological features of this case?

c) Enumerate the other clinical & histopathological variants of the condition?

d) What are the different lines of therapy that may be used in this patient?

Answer:

a) Basal cell carcinoma

Key points:

- 50 years (old age)
- Farmer (sun exposed)
- Inner canthus (characteristic site)
- Beaded edges

b) Basaloid cells have a large, oval nucleus & littlr cytoplasm. The nuclei have a uniform, non-anaplastic appearance. It differs from basal cell by having a large ratio of nucleus to cytoplasm & by absence of intercellular bridges.

There are masses of various shapes & sizes in the dermis, composed of basalioid cells. The peripheral cell layer of tumor masses, show a palisade arrangement of nuclei.

CT stroma proliferates with the tumor arranged in parallel bundles around the tumor mass.

c) Variants:

- Nodulo-ulcerative
- Pigmented BCC
- Superficial BCC
- Morphea-like or sclerosing BCC
- Fibroepithelloma “ of Pinkus”

d)

- Excision
- Mohs micrographic surgery
- Curettage & electrosurgery
- Cryosurgery
- Radiotherapy
- Photodynamic therapy
- CO2 laser
- Topical 5FU, imiquimod